

**GOVERNMENT OF INDIA
NEW AND RENEWABLE ENERGY
LOK SABHA**

UNSTARRED QUESTION NO:1326
ANSWERED ON:09.02.2017
Synchronizing PV Systems with Solar Irradiance
Raju Shri Gokaraju Ganga

Will the Minister of NEW AND RENEWABLE ENERGY be pleased to state:

- (a) whether performance of Photovoltaic system is dependent on solar irradiance and if so, the details thereof;
- (b) whether low solar irradiance results in undesirable variations in power and its supply quality which in turn may lead to grid failures; and
- (c) if so, the details thereof and the measures being taken by the Union Government for intense research and technological upgradation of PV systems so as to enable them synchronize with solar irradiance and to provide more output of power?

Answer

THE MINISTER OF STATE (IC) FOR POWER, COAL, NEW & RENEWABLE ENERGY AND MINES (SHRI PIYUSH GOYAL)

(a): Yes Madam, Solar Photovoltaic systems are directly depends on solar irradiance, as the power generation increases with the increase of solar radiation and decreases with decrease in solar radiation.

(b) & (c): During low solar irradiance, the power output of the photovoltaic system is low. However, an isolation transformer takes care of the quality power being fed to the grid. Hence the variation in the power due to low solar radiation does not lead to the grid failure.
